REMARKS

Claims 16-30 are pending in the Office Action. Though none of the claims have been amended, Applicant respectfully provides the above listing for the Examiner's convenience.

Rejections under 35 U.S.C. §112, second paragraph

The Examiner rejects claims 16-30 under 35 U.S.C. §112, second paragraph for being indefinite. Specifically, the Examiner states that Applicant has omitted "an outer actuator layer," which the Examiner alleges to be an essential element. This allegation is made with reference to MPEP 2172.01. Applicant respectfully traverses.

First, Applicant respectfully refers to the Examiner's use of MPEP 2172.01 in this rejection. MPEP 2172.01 states that a claim that fails to interrelate essential elements of the invention "*as defined by the applicant(s) in the specification*" may be rejected under 35 U.S.C. §112 second paragraph. Applicant respectfully points out that the "outer actuator layer" has not been defined in the specification as being an essential element. In fact, the actuator layer is only described in the specification with respect to the one embodiment of Figure 2 (see paragraph 0029 of the U.S. Publication). Accordingly, Applicant does not define the outer actuation layer as essential, and thus, Applicant respectfully submits that any 35 U.S.C. §112 based on MPEP 2172.01 is inappropriate and overcome.

Second, Applicant respectfully provides the following comments explaining why use of an outer actuator layer is possible with the elements of claim 16, but NOT essential to their interrelation or functionality.

The presence of an outer actuator layer in certain embodiments of the disclosed switching element may aid in performance of the switching element. However this layer is not an essential requirement to functionality of the switching element, the necessary elements of which being sufficiently defined in claim 16.

Conventional foil-type switching sensors comprise a pair of carrier foils arranged at a certain distance from each other by means of a spacer. The spacer comprises at least one opening defining an active area in which electrodes are arranged such that the carrier foils are pressed against one another (establishing electrical contact between the electrodes) in response to pressure being applied to the active area. Various known embodiments of such foil-type switches are described in the introductory parts (paragraphs [00021 to [0006]) of the present application.

In contrast to conventional foil-type sensors, Applicant's switching element employs a membrane (i.e. inner supporting foil) deflection evolution that is controlled by an outer elastic activation layer. Depending on the elasto-mechanical characteristics of this activation layer, the introduction of the force into the membrane system can be adjusted in a controlled manner

By way of example, one type of sensor usage clearly reveals the advantages of Applicant's sensor. This usage pertains to seat occupancy detection where the sensor is arranged in a car seat underneath a cover material. Applicant respectfully notes that when using conventional sensors in this type of usage, there is a risk that their mechanical response will be negatively affected, especially if the cover material is rather rigid and strongly taut above the switching element (i.e. a switching element arranged in a car seat under a leather cover material).

In this case, a major part of the force acting on the cover material in the region of the active area is deviated by the cover material towards the spacer region of the switching element and results in a reduced sensitivity of the switching element.

Applicant further respectfully notes that the particular structure and deformation mode of Applicant's switching element, as defined in claim 16, permits an improved response when used in the above described conditions. Even if, due to the properties of a

cover material, force acting on the switching element is deviated towards a region that is offset of the center of the active zone, the reaction force of the compressed activation layer is directed to a central region of the active area. It follows that the activation layer deviates the force acting on the switching element towards the center of the active area, such that a deflection of the membrane occurs even if the outer force is offset of the center of the active area. Accordingly an activation of the switching element is possible during conditions in which a conventional switching element has no response at all.

Furthermore, since the membrane deformation occurs during well defined conditions under the action of the activation layer, the membrane deformation is in fact substantially independent of the nature and the characteristics of the material of the sensor surroundings (i.e. different foams or cover materials in a seat).

In the above example, the actuating force is transmitted to present foil-type switching element by the overlying seat cover material, and thus, there is no need for an "outer actuator layer."

Hence, at least in applications where the inventive switching element is arranged behind a cover material (seat cover or display cover), there is no need for an actuator layer in the sensor's multi-layered structure itself.

However, with reference to claim 26, Applicant again respectfully notes that the provision of such actuator layer remains possible in application with the elements recited in claim 16.

Applicant believes that all of the outstanding rejection has been addressed herein and is now overcome. Entry and consideration hereof and issuance of a Notice of Allowance are respectfully requested.

If there are any charges with respect to this Amendment or otherwise, please charge them to Deposit Account No. 06-1130 maintained by Applicants' attorneys.

The Office is invited to contact applicant's attorneys at the below-listed telephone number concerning this Amendment or otherwise regarding the present application.

Respectfully submitted,

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